

In the Claims:

~~Please cancel claims 1-10 without prejudice and enter new claims 11-23 therefor:~~

-- 11. A method for producing cells for implantation at the site of a bone infirmity in a human, said method comprising the steps of:

(a) transforming a human progenitor cell with a DNA encoding bone morphogenesis protein 2 (BMP-2); and

(b) culturing the human progenitor cell transformed in step (a),

whereby cells are produced for implantation at the site of a bone infirmity in a human.

12. The method of claim 11 wherein said human progenitor cell is a pluripotent progenitor stem cell.

13. The method of claim 11 wherein said human progenitor cell is a cultured cell line cell.

14. The method of claim 13 wherein said human progenitor cell is a bone marrow stromal cultured cell line cell.

15. The method of claim 13 wherein said cell contains an endogenous bone morphogenesis protein receptor.

16. The method of claim 11 wherein said human progenitor cell is a primary cell.

17. A method for producing cells for implantation at the site of a bone infirmity in a human, said method comprising the steps of:

(a) transforming a human progenitor cell with a DNA encoding bone morphogenesis protein 2 and a DNA encoding a bone morphogenesis protein receptor protein; and

(b) culturing the human progenitor cell transformed in step (a),

whereby a cell for implantation at the site of a bone infirmity is produced.

18. The method of claim 17 wherein the human progenitor cell is a cultured cell line cell.

19. The method of claim 18 wherein said human progenitor cell is a pluripotent progenitor stem cell.

20. The method of claim 18 wherein said human progenitor stem cell contains an endogenous bone morphogenesis protein receptor.

21. The method of claim 17 wherein said human progenitor cell is a primary cell.

22. The method of claim 21 wherein said human progenitor cell contains an endogenous bone morphogenesis protein receptor.

23. The method of claim 17 wherein said human progenitor cell also expresses parathyroid hormone and a parathyroid hormone receptor protein. --